The Halyard

Virginia Department of Education
Office of Educational Technology

March 31, 2006

Charlie's Chatter

News Flash!

OET Has A New Home Port

The Office of Educational Technology will be moving into our new offices effective, Monday April 3. We will be located on the north side of the 22nd floor. This move will culminate a 16 month transition from the 18th floor to our new home on 22. To say we are excited would be an understatement.

My office will overlook both the east and north of the city skyline. While I won't be able to see the river, I will be able to look over I-95 and northward. It will be wonderful to look out the window to determine the weather rather than relying on the VDOT traffic cameras that we have used during our voyage. New furniture, including a desk, file cabinets, long counter workspace, and new partitions await us!

It is now Monday, April 3, I am in, my computer in installed, the phone will come later today, I am almost set. Now if I could only remember where I left those files…..

Overlooking MCV

Northbound I-95

Look! Workspace! My chair won't hit the trashcan!

OET Has New Director

On March 20, OET welcomed a new director. Dr. Tammy McGraw joined the department of education as director of the office of educational technology. She will filling the vacancy left by the retirement of Gloria Barber.

Dr. McGraw brings a wealth of experiences to her new position. She may be remembered by many from her tenure in Franklin County Public Schools where she was an art teacher and later served as Director of Technology and was instrumental in developing The Gereau Center for Applied Technology & Career Exploration.

Dr. McGraw received her doctorate in instructional technology from Virginia Tech and has worked for The Institute for the Advancement of Emerging Technologies in Education (IAETE) at the Appalachia Regional Educational Laboratory where she worked on the *Principals Connections* project and for most recently for **Intelligen**, a consulting firm. She has worked with many divisions to develop and evaluate technology plans. She also worked closely with the DOE in the development of the state's technology plan.

We look forward to learning more about Dr. McGraw and seeing how she will lead our office in providing continuous excellent technical assistance to Virginia's public schools.

Office of Educational Technology
Virginia Department of Education

Be sure to check out our Web pages for the latest news on educational technology!

http://www.doe.virginia.gov/VDOE/Technology/OET/staff.shtml

Wait~time is HOT

One of the current educational theories involves looking at the way teachers ask questions. Using Bloom's Taxonomy as a framework, questions can be grouped as either **LOTS**-lower order thinking skills or **HOTS**-higher order thinking skills. The idea is that by asking a variety of questions and designing questions that encourage critical thinking students will assume more responsibility for their own learning and will achieve higher test scores.

In a review of the literature surrounding developing critical thinking skills, the term 'wait-time" or 'hang-time" is used to describe the amount of time the teacher gives students to answer the question before giving them the answer or asking another question.

According to Mary Budd Rowe at Columbia University if teachers could expand their wait time to five seconds or longer, the length of student responses will increase. If students are not given enough time to formulate a response, their answers are usually short phrases like, "I don't know", or two or three word answers which do not indicate how well they know the answer.

Learning to increasing the hang time is uncomfortable. Educators need to practice waiting for answers. A second waiting seems like forever and the teacher will frequently re-state the original question or go ahead and tell students the answer being sought.

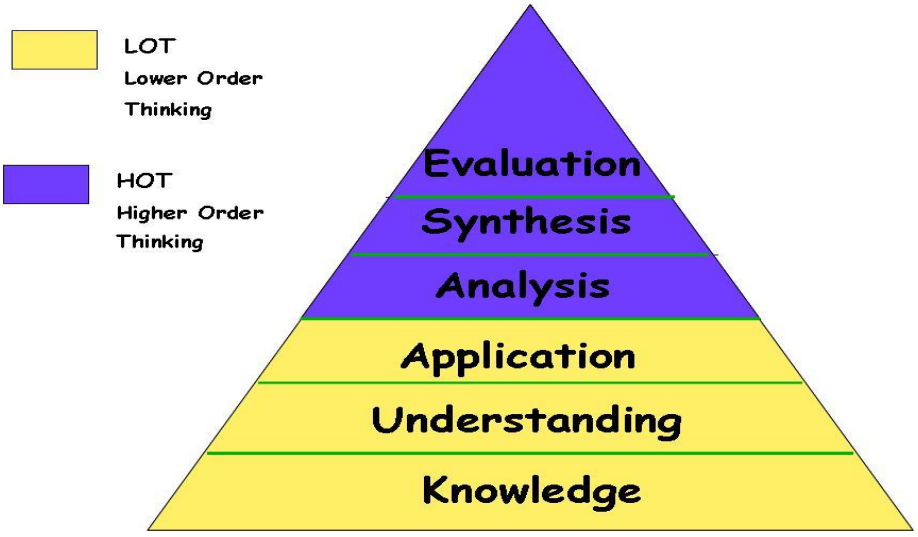
The average wait time is one second!

Rowe suggests the following gains can be seen if teachers would increase their hang time:

1. Students responses are longer.
2. Students respond in complete sentences and with more confidence.
3. Students could engage in speculative thinking about the question—and begin to think out loud about possibilities.
4. The learning shifts from teacher directed to student directed as their confidence grows through the exchange of ideas between students to other students and student to teacher.
5. Students begin to ask their own questions-either for clarification or to express their own thoughts.
6. Teachers begin to listen for the student's questions and responses to the teacher's questions.
7. More students will have an opportunity to respond to the question as more opportunities exist to formulate an answer.
8. Hang time encourages the teacher to develop more **HOT** questions.
9. Students have more opportunities to respond by thinking about the question rather than just a short answer response.

So practice your Hang-Time and see what happens!

Bloom's Taxonomy



LOWER ORDER THINKING SKILLS

Knowledge Questions
Remembering, memorizing, recognizing, recalling
Comprehension/Understanding
Interpreting, translating from one medium to another, describing in one's own words, organization of facts, retelling
Application
Problem solving, appying information to produce a result, use of facts, rules, and principles

HIGHER ORDER THINKING SKILLS
Analysis
Subdividing something to show how it is put together, identifying motives, separation of a whole into parts.
Synthesis
Creating a unique, original product that may be in verbal form or may be a physical object, combination of ideas to form a new idea
Evaluation
Making value decisions about opinions, resolving controversies, judgments, and decisions, developing opinions, judgments, and decisions.

TRANSFORMING A LOTS TO A HOTS

SCIENCE SOL 4.6
4.6 The student will investigate and understand how weather conditions and phenomena (fronts, clouds, and storms) occur and can be predicted.
Activity: The student will identify cloud formation and the symbols used to indicate front and other weather conditions.
Thinking Level: LOTS

Transformation
Activity: Students will look at slides of cloud formations and weather maps. The student will **predict** what kind of weather can be expected.
Question: What weather factors does the meteorologist examine in forecasting the weather?

In the first activity, the student is only required to identify the clouds and the weather symbols. The learning skill here is recognition, recall and identification.

In the transformation activity, the student not only has to know the cloud formation but know what weather the cloud formations will produce. They also need to apply their knowledge of weather symbols and cloud formation from the maps and interpret meanings based on the weather map. This activity requires knowledge, understanding, application, synthesis and evaluation.

The librarian can share both print and electronic resources on weather for this activity.

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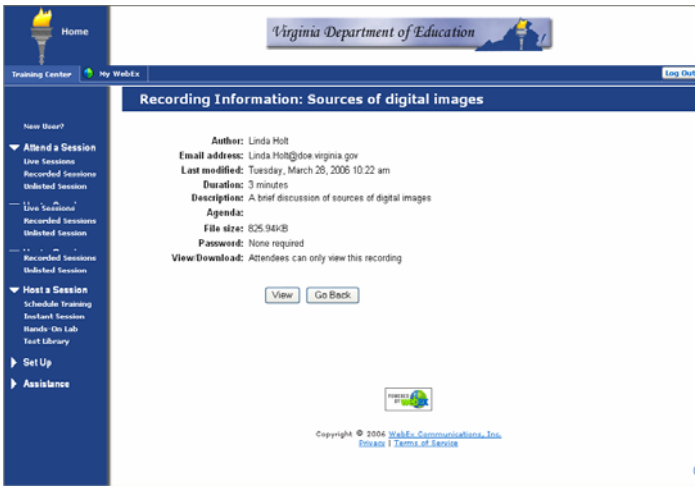
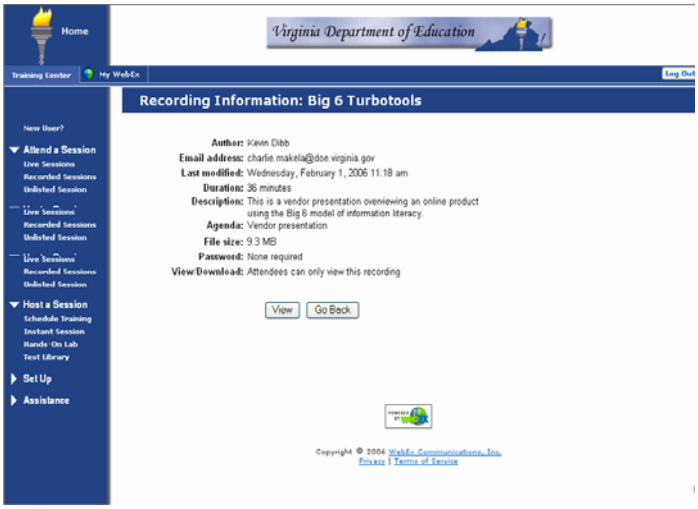
101 North 14th Street Richmond VA 23219 Phone: 804-786-9412
Fax: 804-371-2455
E-mail: Charlie.Makela@doe.virginia.gov





Two exciting opportunities for learning more: Go to https://vadoe.webex.com/vadoe/mywebex/epmainframe.php?rlink=%2Fvadoe%2Fmywebex%2Fmysession%2Fmysessions.php&Rnd=0.24274106152453223 and click on Recorded sessions to view these quick introductions to Digital Images and Big 6 Turbo Tools

We can not control the wind but we can adjust the sails.